

NEW DEVELOPMENTS

NEW BOX ELECTRIC FURNACES FROM THE TERMIKS COMPANY  
FOR GLASS BENDING AND SEALING OF DOUBLE GLASS PANES

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Full-scale production of the ÉK-3/6.5M-II electric furnace and various modifications of the furnace for glass bending have been implemented in Russia. An electric furnace operates on the principle of combined convection-radiation heating which provides desired uniformity of the thermal field in the working space of the furnace at a high heating rate of glass and accessory. Commercial operation of the pilot lot proved the correctness of structural and thermo-technical solutions which ensured high capacity and efficiency of the furnace.

The optimal price/quality ratio makes it possible to warrant the expenses within a 4 – 6 month period. Running of the first furnaces revealed a possibility of simultaneous bending of 6 – 8 glasses having an overall thickness up to 40 mm.

The rather small overall size of the furnace, complete factory operational preparedness, portability, digital control of the heat treatment regime (heating, soak, and cooling) at a certain setting (the mass and thickness of the glass work-piece), the system of accelerated cooling with a manifold of combined extract-and-input ventilation, the participation of the designers in customer personnel training, intermediate maintenance, and state-of-the-art design make the new electric furnace promising for enterprises of small and medium-size business engaged in the production of furniture, small

architectural structures, various glass articles used in sectional and prefabricated building of trade and general duty, vehicle glass, etc.

Main technical parameters  
of the ÉK-3/6.5M-II furnace

Working space volume, m <sup>3</sup> . . . . .	3
Dimensions of the working camera, mm:	
width . . . . .	1200
length . . . . .	2500
height. . . . .	1100
Maximum temperature, °C . . . . .	650
Installed power, kW. . . . .	60

The TermIKS Company is also concerned with the development of electric furnaces for sealing gas-filled and evacuated double-glass panes which are advanced articles for production of energy-conservation windows that match stringent design rules adopted in modern architecture.

Moreover, the TermIKS Research and Development Company deliver electric furnaces (available on order) intended for other technologies of glass heat treatment. Mathematical simulation of technological processes makes it possible to take into account special features of certain problems and thus ensure optimal service of the developed furnaces.